Reviewer’s report

Title: Retrospective Analysis of Demographic and Clinical Factors Associated With Etiology of Febrile Respiratory Illness Among US Military Basic Trainees

Date: 6 June 2014

Reviewer: Pei-lan Shao

Reviewer’s report:

1. Major Compulsory Revisions
The authors described many clinical predictors associated with adenovirus infection and influenza. The sensitivity, specificity, PPV, and NPV for each predictor or combination were described in detail in table 2 and table 3. This could aid clinicians in differential diagnosis when laboratory confirmation is not available and help the appropriate use of antiviral agent and infection control. However, due to the relative low incidence of influenza, PPVs of those predictors for influenza are usually too low to make clinical diagnosis. In the contrary, as a result of the high incidence of adenovirus infection, those predictors for adenovirus are too ambiguous to guide diagnosis because due to the both middle PPVs and NPVs. The authors should discuss the clinical utility of these predictors. The cost and effectiveness of influenza rapid test, antiviral agent usage, and quarantine policy under such probability levels of these predictors can be examined from literature. The authors could also make more specific clinical suggestions.

2. Discretionary Revisions
Winter season is a protective predictor for adenovirus infection. However, cough, fever, acute onset, and winter season associated the highest PPV for influenza. It is interesting to know the sensitivity, specificity, PPV, and NPV for adenovirus infection if a trainee presented with fever, cough in the winter season.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests.